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EXHIBIT A

CLAIMS:

(amended August 2, 2000)

1. An antimicrobial composition which is
 - (A) a mixture comprising at least two GRAS (generally recognized as safe) flavoring agents, except polyphenol compounds and benzyl alcohol, and at least one hydrophilic non-alcoholic GRAS flavoring agent; or
 - (B) a mixture comprising benzyl alcohol or polyphenol compounds and at least one non-alcoholic hydrophilic GRAS flavoring agent, the mixture containing no other GRAS flavor alcohols;

112² wherein said hydrophilic non-alcoholic GRAS flavoring agent is an organic acid containing from 1 to 15 carbon atoms or its physiologically acceptable salt, a hydrophilic acetate and/or a hydrophilic aldehyde, and wherein mixture (A) comprises at least two lipophilic GRAS flavor alcohols, except benzyl alcohol.

2. The composition according to claim 1, wherein said organic acid contains from 2 to 10 carbon atoms and is selected, in particular, from acetic acid, aconitic acid, formic acid, malic acid, lactic acid, phenylacetic acid, citric acid, mandelic acid, tartaric acid, fumaric acid, tannic acid, hydrocinnamic acid and their physiologically acceptable salts;

said hydrophilic acetate is selected from allicin, triacetin, potassium acetate, sodium acetate and calcium acetate; and/or

said hydrophilic aldehyde is selected from furfural, propionic aldehyde and vanillin.

3. The composition according to claim 1 or 2, wherein said lipophilic GRAS flavor alcohols (a) are selected from n-butyl alcohol, iso-butyl alcohol, hexyl alcohol, L-menthol, octyl alcohol, cinnamyl alcohol, α -methylbenzyl alcohol, heptyl alcohol, n-amyl alcohol, iso-amyl alcohol, anisic alcohol, citronellol, n-decyl alcohol, geraniol, β - γ -hexenol, lauryl alcohol, linalool, nerolidol, nonadienol, nonyl alcohol, rhodinol, terpeneol, borneol, clineol, anisole, cuminyl alcohol, 10-undecen-1-ol, 1-hexadecanol, or their derivatives.
4. The composition according to claims 1 to 3, wherein mixture (A) additionally contains GRAS flavoring agents selected from (b) phenols, (c) lipophilic esters, (d) terpenes, (e) acetals, (f) lipophilic aldehydes, (g) essential oils, (h) lipophilic acids, and their derivatives.
5. The composition according to claims 1 to 3, wherein mixture (A) additionally contains a hydrophilic alcoholic GRAS flavoring agent which is a monohydric or polyhydric alcohol containing from 2 to 10 carbon atoms, preferably from 2 to 7 carbon atoms, and is selected, in particular, from 1-propanol, glycerol, propylene glycol and acetoin.
6. The composition according to claims 1 to 5, containing from 0.01 to 90% by weight, preferably from 0.1 to 50% by weight, of GRAS flavoring agents (a) to (h).
7. The composition according to claim 1 or 2, wherein the polyphenol compounds in mixture (B) are selected from pyrocatechol, resorcinol, hydroquinone, phloroglucinol, pyrogallol, hexahydroxybenzene, usnic acid, acylpolyphenols, lignins, anthocyanins, flavones, catechols, gallic acid derivatives, caffeic acid, flavonoids, derivatives of the mentioned polyphenols, and extracts from Camellia, Primula.

8. The composition according to claim 7, wherein said polyphenol compound is tannin.
9. The composition according to claim 7 or 8, containing from 0.01 to 99% by weight, preferably from 0.1 to 90% by weight, of benzyl alcohol or polyphenol compounds, and from 0.01 to 50% by weight, preferably from 0.1 to 30% by weight, of hydrophilic non-alcoholic GRAS flavoring agents.
10. The composition according to claims 7 to 9, wherein said mixture (B) contains additional GRAS flavoring agents selected from (b) phenols, (c) lipophilic esters, (d) terpenes, (e) acetals, (f) lipophilic aldehydes, (g) essential oils, (h) lipophilic acids, and their derivatives.
11. The composition according to claim 10, wherein said additional GRAS flavoring agents are phenols (b) and/or essential oils (g).
12. The composition according to claim 10 or 11, wherein said mixture (B) contains from 0.001 to 25% by weight, preferably from 0.01 to 9% by weight, of said additional GRAS flavoring agents (b) to (h).
13. The composition according to one or more of claims 1 to 12, wherein said composition exclusively consists of GRAS flavoring agents.
14. The composition according to one or more of claims 1 to 12, wherein said composition additionally contains emulsifiers, stabilizers, antioxidants, preservatives, solvents and/or carriers.
15. The composition according to one or more of claims 1 to 14, wherein said antimicrobial composition is part of an additive or of a processing aid.

16. A method for the improvement and/or stabilization of the keeping quality of microbially perishable products, characterized in that an antimicrobial composition as defined in claims 1 to 14 is added as an additive to said microbially perishable product.
17. The method according to claim 16, wherein said additive is added to said microbially perishable product in amounts of from 1 ppm to 10% by weight, preferably from 0.001 to 0.5% by weight, more preferably from 0.002 to 0.25% by weight.
18. Use of the antimicrobial composition according to claims 1 to 14 as an additive for microbially perishable products, especially as an additive for food products and cosmetics.
19. A method for the improvement and/or stabilization of the keeping quality of microbially perishable products in which the surfaces of the products and/or their environment, especially the ambient air and/or the surfaces of the equipment or other materials immediately contacting the products, are treated with one or more processing aids before, after or during the process for the manufacturing, processing or packaging of the products, characterized in that said processing aid comprises an antimicrobial composition as defined in claims 1 to 14.
20. The method according to claim 19, wherein said processing aid is employed in amounts of from 0.01 to 5 g/kg, preferably from 0.05 to 2 g/kg, for food products, in amounts of from 0.001 to 10 g/cm² of air when used for the ambient air, and in amounts of from 0.000001 g to 0.1 g/cm² on the surfaces of equipment.
21. Use of the antimicrobial composition according to claims 1 to 14 as a processing aid.

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22. A microbially perishable product containing the antimicrobial composition according to claims 1 to 14.
23. The microbially perishable product according to claim 22, which is selected from food products, cosmetics and pharmaceuticals.

add A'

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